

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Plant Abstract**

**Element Code:** PDCAC0J0E1  
**Data Sensitivity:** Yes

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Echinomastus erectocentrus* var. *acuñensis*  
**COMMON NAME:** Acuña Cactus, Red Pineapple Cactus (according to Heil and Melton)  
**SYNONYMS:** *Echinocactus acuñensis* W.T. Marshall  
*Neolloydia erectocentra* var. *acuñensis* (W.T. Marshall) L. Benson  
*Sclerocactus erectocentrus* var. *acuñensis* (Coulter) Taylor  
**FAMILY:** Cactaceae

**AUTHOR, PLACE OF PUBLICATION:** W.T. Marshall. Saguaro Land Bulletin. 1953. 7:33 (see also #32) *Echinomastus erectocentrus* (Coulter) B. & R. var. *acuñensis* (Marshall) Bravo

**TYPE LOCALITY:** Organ Pipe National Monument, Pima County Arizona.

**TYPE SPECIMEN:** Lectotype: DES. William Supernaugh. 02 Jan 1951.

**TAXONOMIC UNIQUENESS:**

**DESCRIPTION:** Cactus with solitary stems 7.5-15.0 (-37.5) cm (3.0-6.0 (-15.0)) in tall and 7.5-10.0 (-12.5) cm (3.0 4.0 (-5.0)) in. wide, gray-green in color. Groove extends from areole to base of each tubercule. Spines are distinctive. Radial spines 11-15 per cluster, up to 2.5 cm (1.0 in.) long, reddish to yellowish with dark tips. Central spines 1.88-3.45 cm (0.75-1.38 in.) long, straight. Upper central spines are ascending and converging, giving the appearance of a "red-headed crew cut" (Phillips, Phillips and Brian 1982). Flowers 5.0 cm (2.0 in.) or more long, petaloid perianth parts coral pink to mallow (Benson), pink to purple (Rutman). Fruits pale green, dry to tan, 1.25 cm (0.5 in.) long; bear papery scales and dehisce by splitting. Rigose seeds are black.

**AIDS TO IDENTIFICATION:** "Single plump stem and straight central spines. *Mammillaria microcarpa* has more than one stem and hooked central spines. *Echinocereus* spp. have flowers produced on old growth, below the apex, and usually have several stems and lighter colored spines (Phillips, Phillips and Brian et al. 1982).

**ILLUSTRATIONS:** B&W photo showing tubercles and spines (Benson 1982:795)

**TOTAL RANGE:** Southern Arizona and northern Mexico

**RANGE WITHIN ARIZONA:** Western Pima to Maricopa and Pinal counties

**SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Succulent perennial

**PHENOLOGY:** Early March to mid-April

**BIOLOGY:** Self incompatible, pollinated by bees, flowering correlated with plant size (Johnson 1992).

**HABITAT:** "Restricted to well-drained knolls and gravel ridges between major washes" (Phillips, Phillips and Brian 1982).

**ELEVATION:** 1,300 - 2,000 ft. (397 - 610 m).

**EXPOSURE:** Open

**SUBSTRATE:** Parent material granite (Phillips, Phillips and Brian 1982). Limestone hills and flats (Benson 1982). Andesite (bright red to white) Rutman, 1994.

**PLANT COMMUNITY:** Palo Verde-Saguaro Association of the Arizona Subdivision of the Sonoran Desert Scrub. Dominant associated species: *Larrea tridentata*, *Fouquieria splendens*, *Ambrosia deltoidea*, *Encelia farinosa*, *Olneya tesota*, *Opuntia acanthocarpa*, *Cercidium microphyllum*, and *Ephedra* spp. (Phillips, Phillips and Brian 1982).

**POPULATION TRENDS:** Organ Pipe - stable, others unknown. Kelvin Highway population is down, probably due to poaching.

## **SPECIES PROTECTION AND PRESERVATION**

**ENDANGERED SPECIES ACT STATUS:** C (USDI, FWS 1999)  
[C USDI, FWS 1997]  
[C USDI, FWS 1996]  
[C1 USDI, FWS 1994]  
[C1 USDI, FWS 1993]  
[C1 USDI, FWS 1990]  
[C1 USDI, FWS 1985]  
[LT USDI, FWS 1975]

**STATE LIST STATUS:** Arizona Native Plant Law, Highly Safeguarded  
**OTHER STATUS:** BLM Sensitive Candidate, USFS Sensitive

**MANAGEMENT FACTORS:**

**CONSERVATION MEASURES TAKEN:**

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP** National Park Service

## **SOURCES OF FURTHER INFORMATION**

### **LITERATURE CITATIONS:**

- Benson, L. 1969. *Neolloydia erectocentra* var. *acuñensis*. The cacti of Arizona. pp.190-193.  
Benson, L. 1982. The cacti of the United States and Canada. Stanford University Press, Stanford, California. pp. 792-795.  
Buskirk, W.H. 1981. Status of the Acuña cactus (*Neolloydia erectocentra* var. *acuñensis*) at Organ Pipe  
  
Cactus National Monument, Arizona: a progress report. Unpublished. 9 pp.  
Heil, D. and B. Melton. 1994. Status Report for *Echinomastus erectocentrus* (J.M. Coulter) Britton & Rose var. *acuñensis* (W.T. Marshall) H.Bravo-H.  
Johnson, R.A. 1992. Pollination and reproductive ecology of acuña cactus, *Echinomastus erectocentrus* var. *acuñensis* (Cactaceae). Int. J. Plant Science 153(3):400-408.

- Marshall, W.T. 1953. *Echinomastus acuñensis* sp. nov. Saguaro Land Bulletin 7(3):33-34.
- Phillips, A.M. III and W.H. Buskirk. 1982. Status of the Acuña Cactus (*Neolloydia erectocentra* var. *acuñensis*) and the Ajo Rock Daisy (*Perityle ajoensis*) in Organ Pipe Cactus National Monument, Arizona. Submitted for Research in Organ Pipe Cactus National Monument Symposium volume. 7 pp.
- Phillips, A.M. III, B.G. Phillips, and N. Brian. 1982. Status report on *Neolloydia erectocentra* (Coulter) L. Benson var. *acuñensis* L. Benson. For USFWS, Albuquerque, New Mexico. 13 pp.
- Rutman, S. 1994. Bureau of Land Management, Safford District, Rare Plant Workshop. November 14-16. Tucson, Arizona.
- USDI, Fish and Wildlife Service. 1975. Threatened or Endangered Fauna or Flora: Review of Status of Vascular Plants and Determination of "Critical Habitat"; Notice of Review. Federal Register 40(127):27829.
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- USDI, Fish and Wildlife Service. 1993. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 58(188):51162.
- USDI, Fish and Wildlife Service. 1994. Memorandum from Sam Spiller State Supervisor; List of Federal Candidate Species of Arizona (September 1994).
- USDI, Fish and Wildlife Service. 1996. Endangered and Threatened Wildlife and Plants: Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species; Notice of Review; Proposed Rule. Federal Register 61(40):7604.
- USDI, Fish and Wildlife Service. 1997. Endangered and Threatened Wildlife and Plants; Review of Plant and Animal Taxa that are Candidates or Proposed for Listing as Endangered or Threatened, Annual Notice of Findings on Recycled Petitions, and Annual Description of Progress on Listing Actions; notice of Review; Proposed Rule. Federal Register 62(182):49406.
- USDI, Fish and Wildlife Service. 1999. Endangered and Threatened Wildlife and Plants; Review of Plant and Animal Taxa that are Candidates or Proposed for Listing as Endangered or Threatened; Annual Notice of Findings on Recycled Petitions; Annual Description of Progress on Listing Actions; Proposed Rule. Federal Register 64(205):57542.

**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

William Buskirk - Earlham College, Richmond, Indiana  
Ami Pate - Organ Pipe Cactus National Monument, Ajo, Arizona.

**ADDITIONAL INFORMATION:**

Peters: Population study since 1977 on two populations in Organ Pipe Cactus National Monument, a population on the top of Childs Mt., west northwest of Ajo. However, this habitat is wrong according to S. Rutman. F. Reichenbacher said it could be *E. johnsonii* which grows on black limestone.

Notes from Diversity Review, 1989, by SST. Decline of OPNM population in past 10 years. Also, "Childs Mt. misleading (Black Mt.)" Population now stable (BLM Safford District, Rare Plant Workshop 1994).

Phillips, 1982: Recommended for Federal Threatened listing

F. Reichenbacher (Bureau of Land Management, Safford District, Rare Plant Workshop) stated that the spines get darker and longer as you go west. The Sonoran, Organ Pipe and Ajo populations are similar. The Florence population is intermediate between *E.e. erectocentrus* and *E.e. acuñensis*, having fewer central spines and occurring on granite soil.

Distribution and range on Safford District is not known. Information on poaching activity is needed.

**Revised:** 1989-12-27 (SST)  
1994-11-28 (DBI)

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